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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/934,775	08/21/2001	Clifford Curry	1938-2	8595

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GRAYBEAL, JACKSON, HALEY LLP
155 - 108TH AVENUE NE
SUITE 350
BELLEVUE, WA 98004-5901

EXAMINER

COX, CASSANDRA F

ART UNIT PAPER NUMBER

2816

DATE MAILED: 05/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/934,775

Applicant(s)

CURRY ET AL.

Examiner

Cassandra Cox

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 February 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20 and 21 is/are allowed.
- 6) ☒ Claim(s) 1,2,7-9,16 and 19 is/are rejected.
- 7) ☒ Claim(s) 3-6, 10-15, 17-18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's arguments with respect to claims 1, 3-4, 7-8, 14, 16, and 19 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

2. Claims 1, 3, and 14 are objected to because of the following informalities:

In line 2 of claim 1, insert the word --a-- before the word "set".

In line 3 of claim 7, insert the word --a-- before the word "set".

In line 2 of claim 14, delete the first occurrence of the word "the".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-2, 7-9, 16 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Frodsham (U.S. Patent No. 5,483,188).

In reference to claim 1, Frodsham discloses in Figure 5 a circuit comprising: an actual switch (output drivers 136) coupled to receive an input signal sequence (which is seen as the output of delay block 130) that indicates a set of transitions associated with the actual switch (136); a dummy switch (output drivers 134) coupled to receive a dummy signal (which is seen as the output of delay block 132) that indicates a set of state transitions associated with the dummy switch (134), the dummy signal sequence

indicating state transitions that are mutually exclusive of state transitions indicated by the input signal sequence (this is seen to be true because the transitions associated with the dummy switch (134) are delayed versions of the transitions of the actual switch (136)). The same applies to claim 7 (wherein the output drivers block contains a plurality of switches, see column 5, lines 50-51).

In reference to claim 2, Frodsham discloses in Figure 5 an activation unit (132) having an input coupled to receive the input signal sequence (which is seen as the output of delay block 130) and an output coupled to provide the dummy signal sequence to the dummy switch (134). The same applies to claim 9.

In reference to claim 8, the number of dummy switches (134) is seen to be equal to the number of actual switches (136) because the blocks (136 and 134) are seen to have the same design including the same number of transistor switches.

In reference to claim 16, Frodsham discloses in Figure 5 that the state transitions for the actual and dummy switches are generated by fixed delay blocks (130, 132) therefore the state transitions are seen to be constant during device operation as called for in the claim.

In reference to claim 19, because the claimed structure is fully met by Frodsham, the recited function or "result" limitations "wherein a total switching power corresponding to the number of actual switches plus the number of dummy switches remains essentially constant during device operation" will necessarily be inherent in Frodsham, as held by the court in *In re Best*, 195 USPQ 430.

Allowable Subject Matter

5. Claims 20-21 are allowed.
6. Claims 3-6, 10-15, 17-18 and 20-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
7. The following is a statement of reasons for the indication of allowable subject matter: Claims 3, 10, and 12 would be allowable because the closest prior art of record fails to disclose a circuit as shown in Figure 3 wherein the activation unit (210) is coupled to receive a next state (S, /S) of the actual switch, a present state (D_a, /D_a) of the actual switch, and a present state (D_d, /D_d) of the dummy switch, and is coupled to provide the dummy signal (D_d, /D_d) to the dummy switch in combination with the rest of the limitations of the base claims and any intervening claims. Claim 4 would be allowable because the closest prior art of record fails to disclose a circuit as shown in Figure 2 further comprising a first current source (180) coupled to the actual switch and a second current source (190) coupled to the dummy switch, wherein the second current source (190) provides a different amount of current than the first current source (180) in combination with the rest of the limitations of the base claims and any intervening claims. Claim 11 would be allowable because the closest prior art of record fails to disclose a circuit as shown in Figure 1 having an activation unit (210) corresponding to each dummy switch (150) in combination with the rest of the limitations of the base claims and any intervening claims. Claims 13 and 17 would be allowable because the closest prior art of record fails to disclose a circuit as shown in

Figure 2 wherein a first current source (180) is coupled to an actual switch within the plurality of actual switches; and a second current source (190) is coupled to a dummy switch within the plurality of dummy switches in combination with the rest of the limitations of the base claims and any intervening claims. Claims 5, 14, and 18 would be allowable because the closest prior art of record fails to disclose a circuit as shown in Figure 2 wherein the second current source (190) provides less current than the first current source (180) in combination with the rest of the limitations of the base claims and any intervening claims. Claims 6 and 15 would be allowable because the closest prior art of record fails to disclose a circuit as shown in Figure 4 wherein the actual switch and the dummy switch form a portion (200) of a Digital to Analog converter (300) in combination with the rest of the limitations of the base claims and any intervening claims.

8. The following is an examiner's statement of reasons for allowance: Claims 20 and 21 are allowed because the closest prior art of record fails to disclose a method as disclosed in the specification page 3, lines 7-15 wherein the method comprises the steps of determining whether an actual switch will change state during a next switching cycle; and changing a state of a dummy switch during the next switching cycle in the event that the state of the actual switch will remain unchanged during the next switching cycle in combination with the rest of the limitations of the base claim and any intervening claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

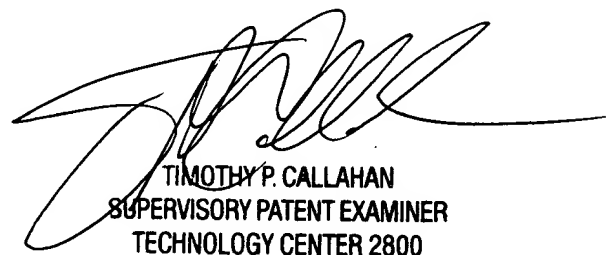
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cassandra Cox whose telephone number is 703-306-5735. The examiner can normally be reached on Monday-Thursday from 8:00 AM to 5:30 PM and on alternate Fridays from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on (703)-308-4876. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

CC
CE

April 29, 2003


TIMOTHY P. CALLAHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800